

REMARKS

Claims 1 – 7 are pending and under consideration in the above-identified application, and Claims 6 – 7 have been withdrawn in response to a restriction/election requirement.

In the office Action, Claims 1 – 5 were rejected.

In this Amendment, Claims 1 and 4 are amended, and Claims 2, 6 and 7 are cancelled. No new matter has been introduced as a result of this amendment.

Accordingly, Claims 1, and 3 – 5 are at issue.

I. 35 U.S.C. § 112 Indefiniteness Rejection of Claims

Claims 1-5 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 4 have been appropriately amended by removing the limitation at issue. As such, Applicants respectfully request that these claim rejections be withdrawn.

II. 35 U.S.C. § 102 Anticipation Rejection of Claims

Claims 4 – 5 were rejected under 35 U.S.C. § 102(a) as being anticipated by Admitted Prior Art (APA).

Claim 4 is directed to a semiconductor device. The semiconductor device comprises a substrate, a first insulation film, a first conductive layer, a second conductive layer, a second insulation film, a third conductive layer.

Claim 4 has been amended to recite that “*a diffusion protection film is formed on upper surfaces of the first conductive layer, the second conductive layer, and the first insulation film, the diffusion protection film is made of Silicon Carbide (SiC), a second insulation film formed on*

upper surfaces of *the diffusion protection film*, the first conductive layer and the second conductive layer and having first opening portions to expose one end portion of the first conductive layer, *second opening portions to expose one end portion* of the second conductive layer, and *third opening portions to expose a portion* of the first insulation film located between the first and second conductive layers.” Claim 4 further recites that “*the third opening portions are formed at predetermined distances of about 100 μ m between each other and between the first and second opening portions along the length of the third conductive layer.*”

That is, a diffusion protection film made of SiC is formed on upper surfaces of the first conductive layer, the second conductive layer, and the first insulation film, and third opening portions are configured to expose a portion of the first insulation film located between the first and second conductive layers and formed at predetermined distances of about 100 μ m between each other and between the first and second opening portions along the length of the third conductive layer.

In contrast, the APA fails to teach or suggest a diffusion protection film made of Silicon Carbide (SiC) and third opening portions configured to expose a portion of the first insulation film located between the first and second conductive layers.

Thus, Claim 4 is patentable over the APA, as is dependent Claim 5 for at least the same reasons.

Accordingly, Applicants respectfully request that these 35 U.S.C. § 102 claim rejections be withdrawn.

III. 35 U.S.C. § 103 Obviousness Rejection of Claims

Claims 1-3 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Admitted Prior Art (APA) in view of Watanabe et al. ("Watanabe") (U.S. Publication No. 2003/0116852).

Claim 1 has been amended in a similar fashion as Claim 4. Thus, claim 1 is also patentable over the APA.

Moreover, Watanabe fails to teach or suggest a diffusion protection film made of SiC is formed on upper surfaces of the first conductive layer, the second conductive layer, and the first insulation film, and third opening portions are formed at predetermined distances of about 100 μm between each other and between the first and second opening portions along the length of the third conductive layer.

In fact Watanabe states in Paragraphs [0030] – [0032] that (emphasis added):

"In addition, the stress-migration can be reduced desirably when p_1 , an interval between neighboring dummy conductive plugs (i.e., an interval between neighboring dummy connection holes), is less than 1 μm .

In particular, when the interval p_1 is smaller than 0.6 μm , the stress-migration can be reduced more effectively.

Similarly, the stress-migration can be reduced preferably when p_2 , an interval between neighboring conductive plug and dummy conductive plug (i.e., an interval between neighboring connection hole and dummy connection hole), is set to less than 1 μm ."

Thus, Watanabe requires that p_1 , an interval between neighboring dummy conductive plugs (third opening portion), and p_2 , an interval between neighboring conductive plug (first and second opening portions) and dummy conductive plug, be less than 1 μm so that the stress-migration can be reduced more effectively. This Watanabe required limitation is so unlike the claimed limitation that recites that third opening portions are formed at predetermined distances of about 100 μm between each other and between the first and second opening portions along the length of the third conductive layer.

Thus, none of these two cited references disclose all of the limitations of Claim 1. Moreover, no combination of these cited references fairly teaches or suggests the claimed features discussed above. Hence, Claim 1 is patentable over the cited references, as is dependent Claim 3 for at least the same reasons.

Accordingly, Applicants respectfully request that these 35 U.S.C. § 103 claim rejections be withdrawn.

IV. Conclusion

In view of the above amendments and remarks, Applicant submits that Claims 1, 3 – 5 are clearly allowable over the cited prior art, and respectfully requests early and favorable notification to that effect.

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